ABSTRACT OF THE DISCLOSURE

A self-propelled mower with blade and ground speed controls. The mower includes a motor with an output shaft and a rotatable cutting blade mounted on a blade shaft. The motor may be an internal combustion engine. A torque transmitting mechanism such as a variable diameter pulley defines a rotational speed ratio between the output shaft and the blade shaft. A transmission is coupled to the output shaft. Sensors provide an electronic control unit with the blade speed, ground speed and engine speed. The ECU may be used to maintain either a desired blade speed or a desired ground speed. To maintain a desired blade speed, the ECU monitors the blade speed and, when the blade speed diverges from the desired speed, adjusts either the rotational speed ratio of the output shaft and blade shaft or the ground speed of the mower to maintain the desired blade speed.